

Claims

1. A fuel supply apparatus comprising an intake chamber including an inlet, through which an air is introduced, and an outlet, through which the introduced air is led to an engine,

a rectifying member that rectifies an air current flowing from the inlet in the intake chamber to the outlet, and

an injector that jets a fuel to the air current in the intake chamber.

2. The fuel supply apparatus according to claim 1, wherein a flow passage leading to the outlet from the inlet is formed in the intake chamber, and

the rectifying member comprises a rectifying wall extending along the flow passage.

3. The fuel supply apparatus according to claim 2, wherein the rectifying wall includes a wide portion, of which a width in a direction perpendicular to that direction, in which the rectifying wall extends, is larger than that of the remaining portion.

4. The fuel supply apparatus according to claim 3, wherein the injector includes an in-chamber portion arranged in the intake chamber,

the rectifying wall is arranged upstream of the in-chamber portion, and

the wide portion of the rectifying wall is positioned at a downstream end of the rectifying wall and has a larger

width than that of the in-chamber portion.

5. The fuel supply apparatus according to claim 3, wherein the injector includes an in-chamber portion arranged in the intake chamber,

the rectifying wall is arranged downstream of the in-chamber portion, and

the wide portion of the rectifying wall is positioned at an upstream end of the rectifying wall and has substantially the same width as that of the in-chamber portion.

6. The fuel supply apparatus according to claim 3, wherein the injector includes an in-chamber portion arranged in the intake chamber, and

the rectifying wall covers the in-chamber portion, supports the in-chamber portion, and extends downstream of the in-chamber portion from upstream thereof.

7. The fuel supply apparatus according to claim 2, wherein at least a part of the rectifying wall is in the form of a symmetric blade.

8. The fuel supply apparatus according to claim 2, wherein a center of the rectifying wall in a direction perpendicular to that direction, in which the rectifying wall extends, is positioned inside the inlet or the outlet.

9. The fuel supply apparatus according to claim 2, wherein the intake chamber includes a plurality of outlets, and

the rectifying walls are provided in plural corresponding to each of the plurality of outlets, and

the plurality of rectifying walls are arranged to be spaced from one another.

10. The fuel supply apparatus according to claim 2, wherein a center of the rectifying wall in a direction perpendicular to that direction, in which the rectifying wall extends, is positioned outside the outlet.

11. The fuel supply apparatus according to claim 10, wherein the intake chamber includes a plurality of outlets, and

a center of the rectifying wall in a direction perpendicular to that direction, in which the rectifying wall extends, is positioned between the plurality of outlets.

12. The fuel supply apparatus according to claim 1, further comprising a partition provided in the intake chamber to compartment a main chamber, in which a flow passage extending from the inlet to the outlet is formed, and a separate chamber partitioned from the main chamber, the partition being formed with a through-hole, which connects between the separate chamber and the main chamber, and

wherein the injector is supported in the separate chamber by the partition to jet a fuel into the main chamber from the through-hole, and

the rectifying member is formed by the partition.

13. The fuel supply apparatus according to claim 12, wherein the injector comprises a nozzle inserted into the through-hole, and

further comprising a sealing member to seal a clearance between the through-hole and the nozzle.

14. The fuel supply apparatus according to claim 1, wherein the intake chamber comprises an air cleaner receiving therein an element, which purifies an air, and

the rectifying member comprises a rectifying wall extending in a direction intersecting a longitudinal direction of the element.

15. The fuel supply apparatus according to claim 1, further comprising an intake passage projecting into the intake chamber from the outlet and having an opening opened to the intake chamber, and

wherein the rectifying member comprises a wall surface, by which an air current from the inlet is led to the opening, and

a space is formed radially outwardly of the opening in the intake chamber.

16. The fuel supply apparatus according to claim 15, further comprising a blow-by gas passage that provides communication between an interior of a crankcase of the engine and the space.

17. The fuel supply apparatus according to claim 15,

wherein the rectifying member comprises a compartment surface that compartments the space.

18. The fuel supply apparatus according to claim 17, wherein the rectifying member is composed of a rectifying plate projecting toward the opening.

19. The fuel supply apparatus according to claim 15, wherein a clearance is formed between the rectifying member and the opening in a direction, in which the opening is opened.

20. The fuel supply apparatus according to claim 15, wherein the injector comprises a nozzle, and

at least a part of the wall surface is positioned downstream of the nozzle and upstream of the opening.

21. The fuel supply apparatus according to claim 15, wherein the wall surface is positioned on an opposite side to the inlet with the opening as reference.

22. The fuel supply apparatus according to claim 1, further comprising an intake passage projecting into the intake chamber from the outlet and having an opening opened to the intake chamber, and

wherein the rectifying member comprises a first wall surface extending toward the opening, and a second wall surface positioned radially outwardly of the opening relative to the first wall surface and separated from an inner surface of the intake chamber.

23. A vehicle comprising the fuel supply apparatus

according to claim 1.

24. The vehicle according to claim 23, wherein the outlet is positioned rearwardly of the inlet, and the rectifying member comprises a rectifying wall extending substantially in a longitudinal direction.

25. The vehicle according to claim 23, wherein the intake chamber comprises a plurality of outlets aligned in a left and right direction, and the rectifying member comprises a rectifying wall extending substantially in a longitudinal direction.

26. The vehicle according to claim 23, wherein the outlet is positioned rearwardly of the inlet, and the rectifying member comprises a rectifying wall extending substantially in a left and right direction.

27. The vehicle according to claim 23, wherein the intake chamber comprises a plurality of outlets aligned in a left and right direction, and

the rectifying member comprises a rectifying wall extending substantially in a left and right direction.